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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/488,945	01/19/2000	Steve Ames	082771.P118C	5142
7590 09/08/2004				
Blakely Sokoloff Taylor & Zafman LLP 12400 Wilshire Boulevard Seventh Floor Los Angeles, CA 90025			EXAMINER POLLACK, MELVIN H	
			ART UNIT 2141	PAPER NUMBER

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/488,945

Applicant(s)

AMES ET AL.

Examiner

Melvin H Pollack

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-26,28,29,37,38 and 44-74 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-26,28,29,37,38 and 44-74 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 January 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. <u>8/3/04</u> |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>see attached office action</u> . |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 5/24/04 have been fully considered but they are not persuasive. A list of the reasons is as follows.
2. Applicant has combined the limitations of claims 17 and 18, and made similar changes to other independent claims. Dependent claims have been amended to reflect the new dependencies.
3. The primary issue involves whether Perlman teaches that the switch device in question is connected directly to a router through a port. Applicant claims that Perlman teaches the coupling to LAN extension segments, particularly the "coupling of the bridge-like IP router (BLIP) between extended LAN segments, not a router." Actually, a LAN segment such as those shown in Figure 1 is composed of a variety of elements, and a device may be connected to the LAN only through one of those elements. If said device wishes to communicate with any and all of the devices in the extended LAN, it must connect directly to some type of routing/switching/bridging device, as is well known in the art and shown in Figure 1. Figure 1 further shows that a BLIP (Fig. 1, #22) is directly connected by router to an outside extended LAN (col. 8, lines 15-20). Furthermore, the term "directly coupled" is considered by one of ordinary skill in the art to extend beyond physical connections to logical connections; absent evidence that communications to the router are being translated or rerouted, the examiner considers Perlman to be adequately teaching this fact.
4. The applicant also fails to show why said switch being directly coupled to the router should be considered an inventive step or a novelty in this area. There is no explanation in the

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claims or specification regarding how the router is used by the switch, or whether it performs any activity other than being a connection point for an extended LAN. There is no explanation regarding the difficulty of replacing a bridge (Fig. 1, #20) or a second BLIP (Fig. 1, #16) with a router, or whether such a decision would be obvious to one of ordinary skill in the art. Further, the applicant has failed to show that the network structure and topology is critical to the functionality or usage of the invention. Therefore, the examiner cannot adequately determine if this aspect is novel and non-obvious.

5. In response to applicant's arguments, the recitation "switch... interposed between a router and the first and second networks" has not been given patentable weight because the recitation occurs in the preamble of claim 37. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

6. As for applicant's claim that more than two extended LAN segments are not taught by Perlman, examiner notes that more segments may be connected (col. 8, lines 1-50) and that furthermore it is inherent that said system is able to connect to any number of networks regardless of what was drawn in the figure.

7. For the reasons above, the rejection stands. This rejection is therefore final.

Claim Rejections - 35 USC § 102

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8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 18, 20-22, 24-26, 28, 29, 37, 44, 45, 48-52, 55-59, 61-69, 71-73 are rejected under 35 U.S.C. 102(b) as being anticipated by Perlman et al. (5,309,437).

10. For claim 18, Perlman teaches a switch (see abstract; col. 1, lines 5-15; col. 5, lines 14-25; BLIP) comprising:

- a. A plurality of ports (col. 5, lines 35-37) including:
 - i. A first plurality of ports coupled to a plurality of devices, including a destination device, associated with at least two networks (col. 8, lines 10-20), and
 - ii. A second plurality of ports directly coupled to a router (col. 8, lines 20-25); and
- b. A mechanism to determine (col. 5, lines 35-50), using layer 3 (L3) information (col. 3, line 55-col. 4, line 25; IP) contained in a packet received (col. 5, line 65 – col. 6, line 5) by a source port of the plurality of ports (Fig. 1, connection to external routers), which one of the plurality of ports is coupled to a destination device (Fig. 1, connection to multiple LANs) and to transfer information contained in the packet to the destination device without use of a routing function (col. 5, lines 35-50; the device uses a “bridge-like manner” for IP traffic).

11. For claim 20, Perlman teaches that the mechanism analyzes data transmitted between the router and the destination device (Fig. 2, esp. 2B, #64).

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12. For claim 21, Perlman teaches that the data is packetized in accordance with an Address Resolution Protocol (col. 5, line 50 – col. 6, line 5; ARP).

13. For claim 22, Perlman teaches that the mechanism generates a data structure (col. 6, lines 20-37; router database) including layer 2 (L2) addresses (data link layer addresses, i.e. MAC) and corresponding layer 3 (L3) addresses associated with the destination device prior to transferring information to the destination device (col. 6, lines 37-50).

14. Claims 24 and 26 combined are drawn to the limitations in claims 18, 20 and 22 combined. Therefore, since claims 18, 20 and 22 are rejected, claims 24 and 26 are also rejected for the reasons above.

15. Claim 25 is drawn to the limitations in claim 21. Therefore, since claim 21 is rejected, claim 25 is also rejected for the reasons above.

16. Claim 28 is drawn to a network system that implements the method drawn in claims 18 and 22. It is well known in the art that a system implementation is functionally equivalent to the underlying method. Therefore, since claims 18 and 22 are rejected, claim 28 is also rejected for the reasons above. A teaching that shows the functional equivalence will be included upon request.

17. Claim 29 is drawn to the limitations that the two networks are separate and distinct, and that the switch is remotely located from the router. Claim 18 addresses the fact that the destination devices are on one set of ports while the source devices are on a second set of ports. Claim 28 has the limitations of a destination device on one network and a source device on another network, which means that the first network is on a separate set of ports from the second

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network. Thus, the two networks are inherently separate and distinct. As for the router being remotely located, Perlman teaches this as well (Fig. 1).

18. Claim 37 is drawn to a method that effectively describes the activities undertaken by the hardware system as drawn in claims 18 and 20. It is well known in the art that the underlying method of a given system is functionally equivalent to said system. Therefore, since claims 18 and 20 are rejected, then claim 37 is also rejected for the reasons above. A teaching regarding the method/system equivalence is available upon request.

19. Claims 44 and 45 are drawn to the limitations in claim 18 and 28. Therefore, since claims 18 and 28 are rejected, claims 44 and 45 are also rejected for the reasons above. A discussion showing this is similar to that of the claim 29 discussion above, in which it is inherent, via the aspects of the claim language and of switch ports, that the source and destination are on separate networks, and that the ports are thus connected to separate networks. Further, by separating the ports, one inherently defines one set as connected to a separate network from the other set.

20. Claims 48 and 49 are drawn to the limitations in claim 18. Therefore, since claim 18 is rejected, claims 48 and 49 are also rejected for the reasons above.

21. Claims 50 and 51 are drawn to the limitations in claim 22. Therefore, since claim 22 is rejected, claims 50 and 51 are also rejected for the reasons above.

22. Claim 52 is drawn to the limitations in claims 18 and 22. Therefore, since claims 18 and 22 are rejected, claim 52 is also rejected for the reasons above.

23. Claim 55 is drawn to the limitations in claim 20. Therefore, since claim 20 is rejected, claim 55 is also rejected for the reasons above.

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24. Claim 56 is drawn to the limitations in claim 21. Therefore, since claim 21 is rejected, claim 56 is also rejected for the reasons above.

25. Claim 57 is drawn to the limitations in claim 29. Therefore, since claim 29 is rejected, claim 57 is also rejected for the reasons above.

26. Claim 58 is drawn to the limitations in claim 50. Therefore, since claim 50 is rejected, claim 58 is also rejected for the reasons above.

27. Claim 59 is drawn to the limitations in claims 18 and 20. Therefore, since claims 18 and 20 are rejected, claim 59 is also rejected for the reasons above.

28. Claim 61 is drawn to the limitations in claim 20. Therefore, since claim 20 is rejected, claim 61 is also rejected for the reasons above.

29. Claim 62 is drawn to the limitations in claim 21. Therefore, since claim 21 is rejected, claim 62 is also rejected for the reasons above.

30. Claim 63 is drawn to the limitations in claim 29. Therefore, since claim 29 is rejected, claim 63 is also rejected for the reasons above.

31. Claim 64 is drawn to the limitations in claim 59. Therefore, since claim 59 is rejected, claim 64 is also rejected for the reasons above.

32. Claim 65 is drawn to the limitations in claim 21. Therefore, since claim 21 is rejected, claim 65 is also rejected for the reasons above.

33. Claim 66 is drawn to the limitations in claim 50. Therefore, since claim 50 is rejected, claim 66 is also rejected for the reasons above.

34. Claim 67 is drawn to the limitations in claim 18. Therefore, since claim 18 is rejected, claim 67 is also rejected for the reasons above.

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35. Claim 68 is drawn to the limitations in claim 22. Therefore, since claim 22 is rejected, claim 68 is also rejected for the reasons above.

36. Claim 69 is drawn to the limitations in claim 29. Therefore, since claim 29 is rejected, claim 69 is also rejected for the reasons above.

37. Claims 71-73 drawn to a method that effectively describes the activities undertaken by the hardware system as drawn in claims 67-69. It is well known in the art that the underlying method of a given system is functionally equivalent to said system. Therefore, since claims 67-69 are rejected, then claims 71-73 also rejected for the reasons above. A teaching regarding the method/system equivalence is available upon request.

Claim Rejections - 35 USC § 103

38. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

39. Claims 19, 38, 46, 47, 53, 54, 60, 70, 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman as applied to claims 18, 37, 44, 45, 52, 59, 67-69, and 71-73 above, and further in view of Ross (5,394,402).

40. For claim 19, Ross teaches a method of connecting multiple networks (abstract) where both of the at least two networks are virtual local area networks (VLAN or virtual LAN) (col. 2, lines 45-50). Perlman, the primary reference, teaches the interconnection of various LANs that are similar to virtual LANs (col. 4, lines 53-65), but does not expressly disclose that the networks are VLANs. At the time the invention was made, one of ordinary skill in the art would have

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used VLANs, which were well known in the art, in a Perlman "extended LAN" so as to achieve certain benefits such as better security and bandwidth (col. 2, lines 6-30).

41. Claim 38 is drawn to a method that effectively describes the activities undertaken by the hardware system as drawn in claim 19. It is well known in the art that the underlying method of a given system is functionally equivalent to said system. Therefore, since claim 19 is rejected, then claim 38 is also rejected for the reasons above. A teaching regarding the method/system equivalence is available upon request.

42. Claims 46 and 47 are drawn to a method that effectively describes the activities undertaken by the hardware system as drawn in claim 19. It is well known in the art that the underlying method of a given system is functionally equivalent to said system. Therefore, since claim 19 is rejected, then claims 46 and 47 are also rejected for the reasons above. A teaching regarding the method/system equivalence is available upon request.

43. Claims 53 and 54 are drawn to the limitations in claims 18 and 19. Therefore, since claims 18 and 19 are rejected, claims 53 and 54 are also rejected for the reasons above.

44. Claim 60 is drawn to the limitations in claims 18 and 19. Therefore, since claims 18 and 19 are rejected, claim 60 is also rejected for the reasons above.

45. Claim 70 is drawn to the limitations in claim 19. Therefore, since claim 19 is rejected, claim 70 is also rejected for the reasons above.

46. Claim 74 is drawn to a method that effectively describes the activities undertaken by the hardware system as drawn in claim 70. It is well known in the art that the underlying method of a given system is functionally equivalent to said system. Therefore, since claim 70 is rejected,

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then claim 74 is also rejected for the reasons above. A teaching regarding the method/system equivalence is available upon request.

47. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman as applied to claim 18 above, and further in view of Civanlar et al. (5,805,805).

48. For claim 23, Perlman teaches that the destination device includes at least two LAN networks (see rejection of claim 18), but does not expressly disclose that the destination device includes a server associated with one of the at least two networks. That is, Perlman does not expressly disclose the setup of a LAN, or that said LAN would consist of a server and/or clients, but instead leaves the LAN as a "black box" so that a variety of LAN configurations may be used. Civanlar teaches this limitation (abstract; Fig. 1-3). At the time the invention was made, one of ordinary skill in the art would have recognized that a LAN includes a server, such configurations being well known in the art, so that Perlman may be compatible with LAN configurations that are well known in the art, i.e. so that a user can connect to the internet through a local gateway server or ISP (Perlman, col. 1, lines 20-35), which would allow the LAN to have greater bandwidth, as internal networks are faster than external networks.

49. Examiner also takes Official Notice (see MPEP § 2144.03) that "a server is associated with at least one network" in a computer networking environment was well known in the art at the time the invention was made. Indeed, a LAN usually involves a server of some type, be it a content server for storing shared data or a gateway server for sharing an external connection, connected to a set of clients and to a larger network. At the time the invention was made, one of

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ordinary skill in the art would have known to interpret a LAN as including a gateway. The motivations for doing so are the same as those in the Civanlar rejection.

50. The Applicant is entitled to traverse any/all official notice taken in this action according to MPEP § 2144.03. However, MPEP § 2144.03 further states "See also *In re Boon*, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice)." Specifically, *In re Boon*, 169 USPQ 231, 234 states "as we held in *Ahlert*, an applicant must be given the opportunity to challenge either the correctness of the fact asserted or the notoriety or repute of the reference cited in support of the assertion. We did not mean to imply by this statement that a bald challenge, with nothing more, would be all that was needed". Further note that 37 CFR § 1.671(c)(3) states "Judicial notice means official notice". Thus, a traversal by the Applicant that is merely "a bald challenge, with nothing more" will be given very little weight.

Conclusion

51. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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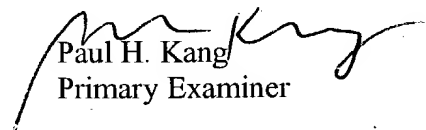
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin H Pollack whose telephone number is (703) 305-4641.

The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (703) 305-4003. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Melvin H Pollack
Examiner
Art Unit 2141


Paul H. Kang
Primary Examiner

MHP
26 August 2004